

CLAIM LISTING

Claims 1-244 (Canceled)

245. (Currently amended) A nucleic acid construct comprising at least three nucleic acid strands:

(a) a first nucleic acid strand, wherein said first nucleic acid strand is a circular strand;

(b) a second nucleic acid strand, wherein said second nucleic acid strand is fully complementary to said first nucleic acid strand;

~~[[3]]~~ (c) a third nucleic acid strand, ~~wherein comprising a first portion of the third nucleic acid strand is complementary to said first nucleic acid strand and the remaining a second portion~~ [[is]] not complementary to said first nucleic acid strand and ~~strainstrand~~ and ~~not complementary to said second nucleic acid strand,~~

wherein when said first nucleic acid strand is hybridized to said second nucleic acid strand to form a double stranded portion ~~comprising said second nucleic acid strand,~~ said double-stranded portion forms a template for synthesis of a nucleic acid product when present in a cell;

wherein when said first nucleic acid strand is hybridized to ~~[[a]]~~ said first portion of said third ~~nuclele~~ nucleic acid strand, said second nucleic acid strand ~~complementary to said first nucleic acid strand~~ and said first portion of said third nucleic acid strand ~~complementary to said first nucleic acid strand~~ form a gapped circle, and said second portion of said third nucleic acid strand ~~not complementary to said first nucleic acid strand and not complementary to said second nucleic acid strand~~ forms a linear tail, and wherein

(i) said linear tail is covalently attached to an antibody or (ii) ~~said linear tail~~ is hybridized to a fourth nucleic acid ~~strainstrand~~, wherein said fourth nucleic acid ~~strain~~ that is covalently attached to an antibody.

246. (Original) The construct of claim 245 wherein said antibody comprises a polyclonal or monoclonal antibody.

247 (Currently amended) A composition comprising:

(a) a non-natural ~~entity~~ structure which comprises :

(i) a first domain, ~~wherein said first domain is an entity that is~~
complementary and binds noncovalently to a specific nucleic acid component, and
~~comprises a linear nucleic acid strand complementary to a sequence of a nucleic acid~~
~~strand of said specific nucleic acid component and~~
(ii) a ~~[[a]]~~ second domain, wherein said second domain ~~is~~ comprises an
~~entity antibody that specifically binds noncovalently to an epitope on the surface of a cell~~
~~of interest, wherein said second domain is an antibody that recognizes a epitope on the~~
~~surface of said cell of interest,~~

wherein said second domain is separated from said first domain by extension of
a strand of ~~[[a]]~~ said specific nucleic acid component after introduction of the composition
into the cell; and

(b) said specific nucleic acid component, wherein said specific nucleic acid
component comprises ~~two separate~~ a first double stranded region ~~[[s]]~~ and a second
double stranded region,

wherein said specific nucleic acid component ~~(b)~~ is bound to said non-natural
~~entity (a)~~ structure through hybridization of said linear nucleic acid strand of said first
domain ~~complementary to a sequence of a nucleic acid strand of said specific nucleic~~
~~acid component with said complementary sequences in said nucleic acid strand of said~~
~~specific nucleic acid component thereby forming~~ ~~[[a]]~~ said first double-stranded region of
said nucleic acid component,

wherein said second double-stranded region is formed either by self-
complementary sequences of ~~said nucleic acid strand of~~ said specific nucleic acid
component or by a third nucleic acid strand ~~is hybridized~~ hybridizing to said nucleic acid
strand of said nucleic acid component,

wherein said specific nucleic acid component is a nucleic acid construct that directs synthesis of a nucleic acid product, and ~~wherein said nucleic acid component~~ comprises a ~~nucleic acid~~ sequence desired to be delivered to said cell of interest.

248. (Previously presented) The composition of claim 247, wherein said non-natural entity further comprises a binder.

249-250 (Canceled)

251. (Previously presented) The composition of claim 248, wherein said binder is a polymer.

252 (Canceled)

253. (Original) The composition of claim 247, wherein said cell is prokaryotic or eukaryotic.

254-260 (Canceled)

261. (Original) The composition of claim 247, wherein said cell of interest is contained within an organism.

262. (Original) The composition of claim 247, further comprising said cell of interest.

263. (Currently amended) A method of introducing a nucleic acid component into a cell comprising:

- (a) providing the composition of claim 247 and
- (b) administering said composition to said cell.

264. (Original) The method of claim 263, wherein administering is carried out *in vivo*.

265. (Original) The method of claim 263, wherein administering is carried out *ex vivo*.

266-305 (Canceled)

306. (Currently amended) A ~~kit which comprises~~ composition comprising:

(a) a non-natural ~~entity~~ structure which comprises:

(i) at least one first domain comprising a linear nucleic acid strand that is complementary and binds noncovalently to a sequence of a specific nucleic acid component ~~wherein said domain to said specific nucleic acid component is a first domain, wherein said first domain is an entity that binds noncovalently to a specific nucleic acid component and comprises a linear nucleic acid strand complementary to a sequence of a nucleic acid strand of said specific nucleic acid component,~~ and

(ii) at least one second domain, wherein said second domain comprises an entity that binds noncovalently to a cell of interest, ~~wherein said domain to said cell of interest a second domain, wherein said second domain is an entity that binds noncovalently to a cell of interest,~~

wherein said second domain entity is selected from the group consisting of a hormone specific to a receptor on said cell of interest, a lectin specific for a sugar on the surface of said cell of interest, a virus particle or viral fragment that binds to a receptor on the surface of said cell of interest, and an antibody that recognizes a epitope on the surface of said cell of interest,

wherein said second domain is separated from said first domain by extension of a strand of ~~[[a]]~~said specific nucleic acid component after introduction of the composition into the cell;

(b) said specific nucleic acid component, wherein said specific nucleic acid component comprises ~~two separate~~ a first double stranded region~~[[s]]~~ and a second double stranded region,

wherein said specific nucleic acid component ~~(b)~~ is bound to said non-natural entity structure (a) through hybridization of said linear nucleic acid strand of said first domain ~~complementary to a sequence of a nucleic acid strand of said specific nucleic acid component with said complementary sequences in said nucleic acid strand of said specific nucleic acid component~~ thereby forming ~~[[a]]~~said first double-stranded region of said nucleic acid component,

wherein said second double-stranded region is formed either by self-complementary sequences of ~~said nucleic acid strand of said specific~~ nucleic acid component or by a third nucleic acid strand ~~is hybridized~~hybridizing to said nucleic acid strand of said nucleic acid component,

wherein said specific nucleic acid component is a nucleic acid construct that directs synthesis of a nucleic acid product and comprises a sequence desired to be delivered to said cell of interest, and

~~wherein said specific nucleic acid component comprises a nucleic acid sequence desired to be delivered to said cell of interest and~~

~~(c) buffers and instructions.~~

307. (Currently amended) A method of introducing a nucleic acid component into a cell comprising:

- (a) providing the composition of claim 245 and
- (b) administering said composition to said cell.